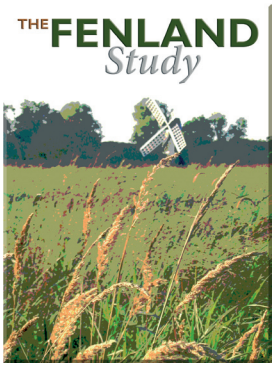
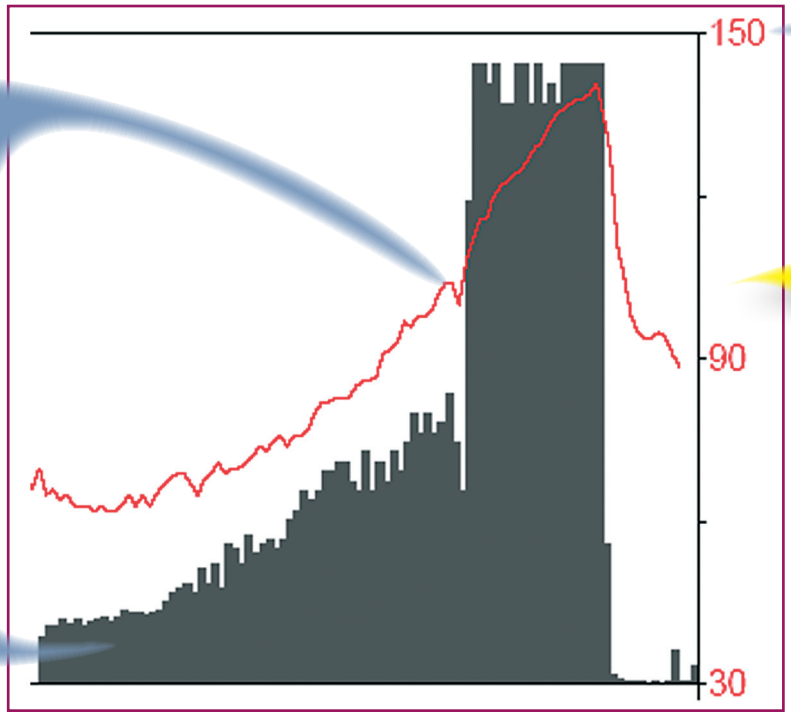


MRC Epidemiology Unit

How to interpret your results

1. Feedback of fitness and physical activity

YOUR TREADMILL TEST



The red trace shows your heart rate during the treadmill test

Heart Rate Scale

The grey blocks show the measurement of movement

In this report you will find a graph that looks like the one shown here. This is from the Actiheart worn during the test

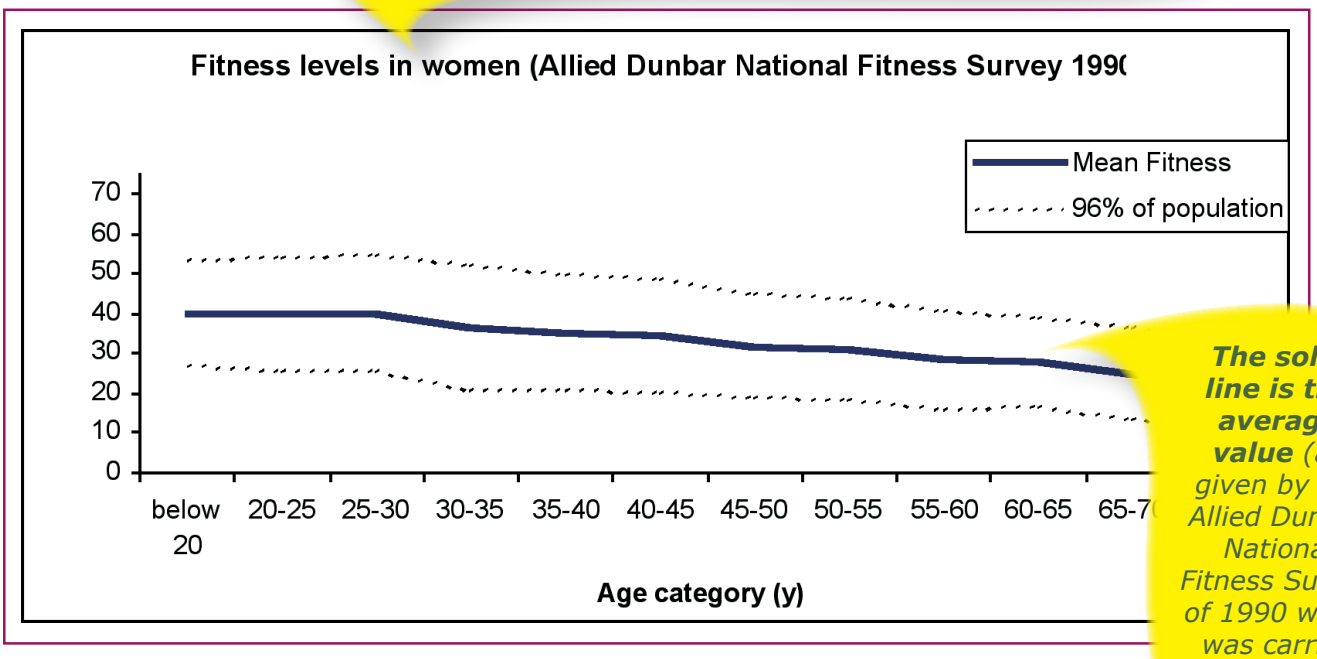
MAXIMUM HEART RATE	*The data shown in the graphs can be used to give an estimate of your fitness. We use your age to make a standard prediction of your maximum heart rate (208 – 0.7x age).* ***You will find that value in the report.***

YOUR FITNESS LEVEL

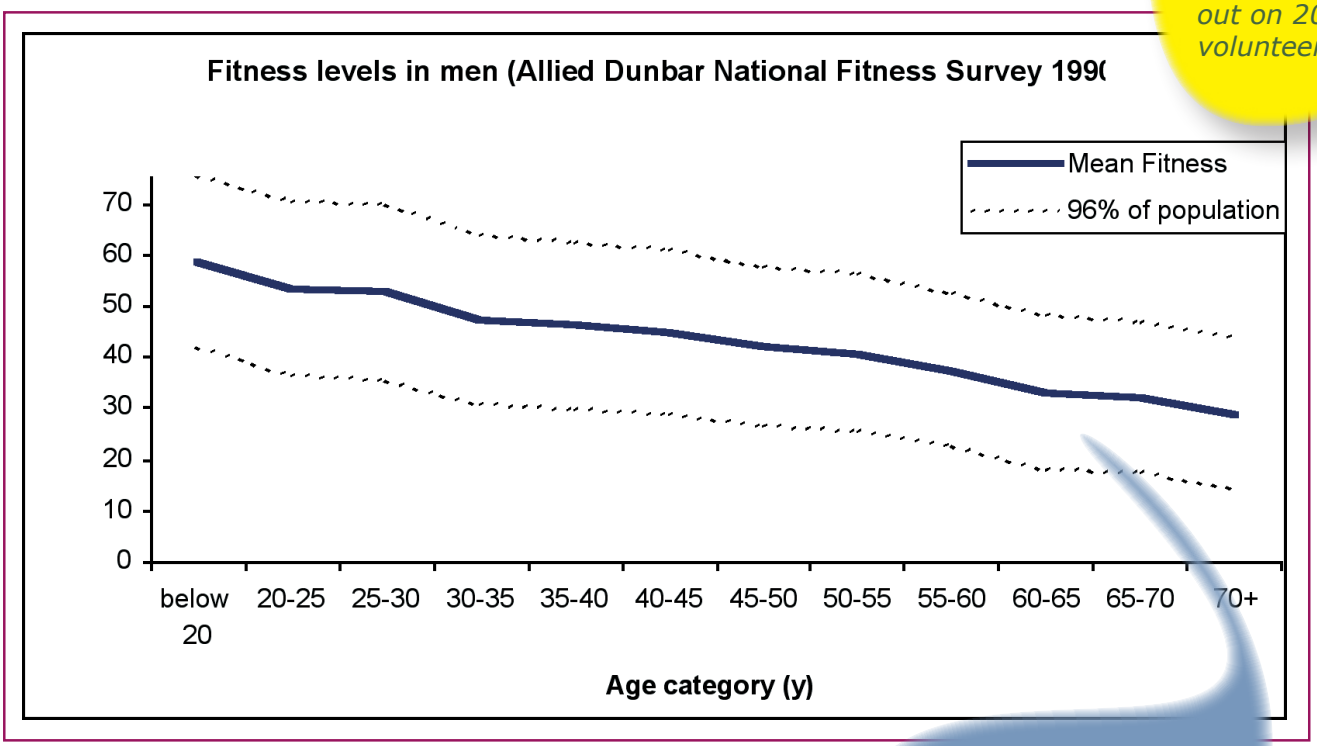
V02 MAX

Knowing the relationship between your heart rate and oxygen consumption we can then estimate how much oxygen you would use at your maximum heart rate. This is expressed relative to your weight to give your fitness level. ***You will find that value in the report.***

The graphs below can be used to show how your fitness compares to the general population.



The solid line is the average value *(as given by the Allied Dunbar National Fitness Survey of 1990 which was carried out on 2000 volunteers.)*

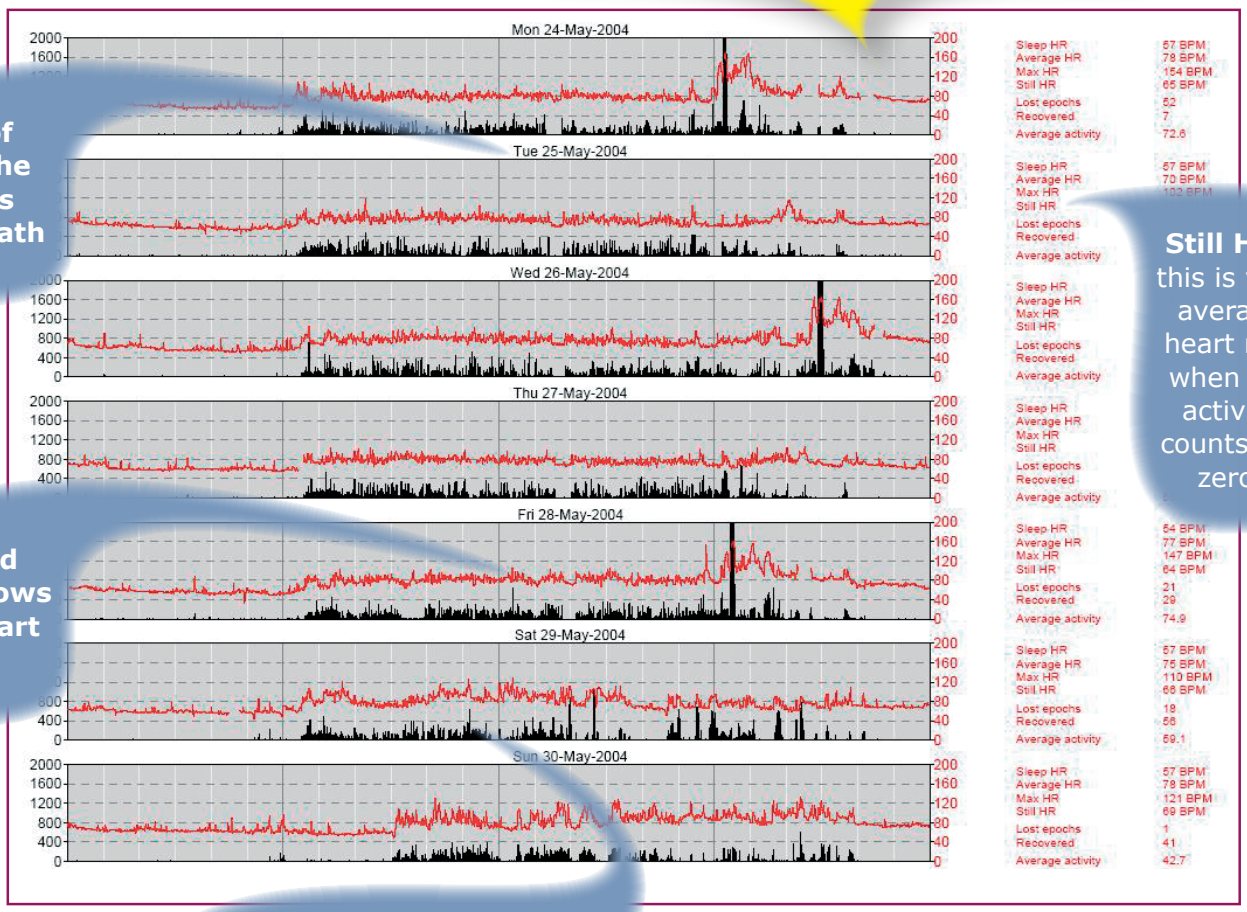


"Allied Dunbar National Fitness Survey 1990"

The area within the broken lines shows where 96% of the population lies

YOUR FREE-LIVING MEASUREMENTS

In this report you will find graphs from the Actiheart that you wore for 6 days of free living. They look similar to the graphs shown here.



Date of trace, the trace is underneath

Still HR : this is your average heart rate when the activity counts are zero.

The red trace shows your heart rate

The grey blocks show measurement of movement

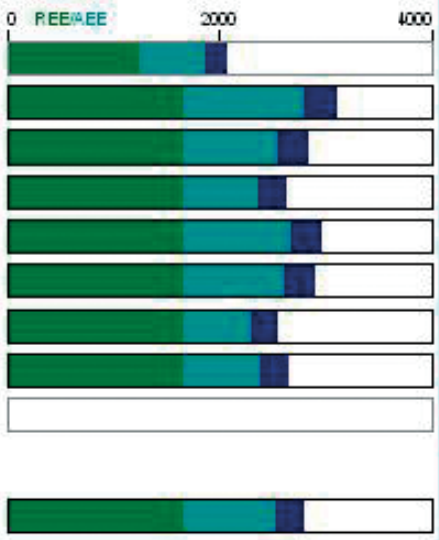
ENERGY EXPENDITURE DURING YOUR 6 DAYS FREE LIVING

REE	*We measured your oxygen consumption at rest. From this we can estimate your resting energy expenditure* **REE**. *This is the* **minimum** *amount of energy you spend all the time, even when you are asleep.*
AEE	*We have used the Actiheart data to estimate your activity energy expenditure* ***AEE***.
TEE	*We have also estimated your total energy expenditure* ***TEE*** *(activity plus rest plus 10% for processing the diet) for each of the six days.*
PAL	*The ratio of total energy expenditure* ***TEE*** *and resting energy expenditure* ***REE*** *is known as your physical activity level* ***PAL***. ***You will find all these values in your report.***

In this report you will find a page like this. It shows estimates of your energy levels over the 6 days you wore the Actiheart.

Actiheart Energy Expenditure

User ID	99934_free	Weight	67kg
Age	39	Height	1.67m
User sex	Female	BMI	24
RMR	1640		



	kCal				
	REE	AEE	DIT	TEE	PAL
Wed 26/05/2004	1230	626	206	2062	
Thu 27/05/2004	1640	1136	308	3085	1.88
Fri 28/05/2004	1640	896	282	2819	1.72
Sat 29/05/2004	1640	717	262	2620	1.60
Sun 30/05/2004	1640	1013	295	2948	1.8
Mon 31/05/2004	1640	954	288	2883	1.76
Tue 01/06/2004	1640	643	254	2537	1.55
Wed 02/06/2004	1640	737	264	2641	1.61
Thu 03/06/2004	0	0	0	0	
Average of full days	1640	871	279	2790	1.70

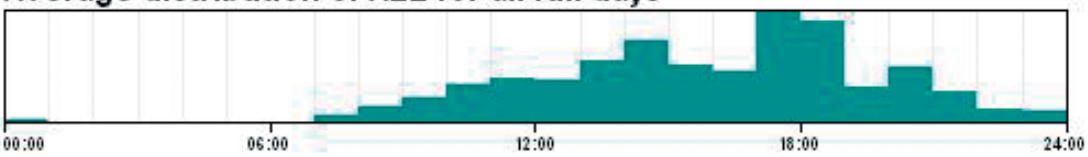
PAL: *Physical activity level*

TEE: *Total energy expenditure per 24 hours*

REE: *Resting energy expenditure per 24 hours*

AEE: *Activity energy expenditure per 24 hours*

Average distribution of AEE for all full days



Average daily times for MET Levels

1.0 to 1.5 MET	1.5 to 2.0 MET	2.0 to 2.5 MET	2.5 to 3.0 MET	3.0 to 6.0 MET	More than 6.0 MET
15:32	03:47	02:24	00:58	01:11	00:06

This is a breakdown of the time spent at different intensity levels as multiples of rest (METS)

TEE = Total Energy Expenditure (REE+ AEE+ DIT)
REE = Resting Energy Expenditure
DIT = Diet Induced Thermogenisis (10% of TEE)
AEE = Activity Energy Expenditure
PAL = Daily Physical Activity Level TEE/REE

Printed : Friday 04-Feb-2005 16:35

AEE/TEE version 1.1 Cambridge Neurotechnology

Data from many different studies have been used to give the following reference values for physical activity levels. These values are based on energy requirements and as such are only rough estimates.

PAL value	Description
<1.2	*Bed rested.* *Most likely when in care of others*
1.2 – 1.55	*Low activity level:* *Sedentary lifestyle*
1.55 - 1.71	*Medium activity level:* *Occasionally active. Typical office work*
1.71 – 1.95	*High activity level:* *Some manual work and/or regular exercise*
>1.95	*Very high activity level:* *A fair amount of manual work or exercise training*

Reference values for PAL (FAO/WHO/UNU 1985

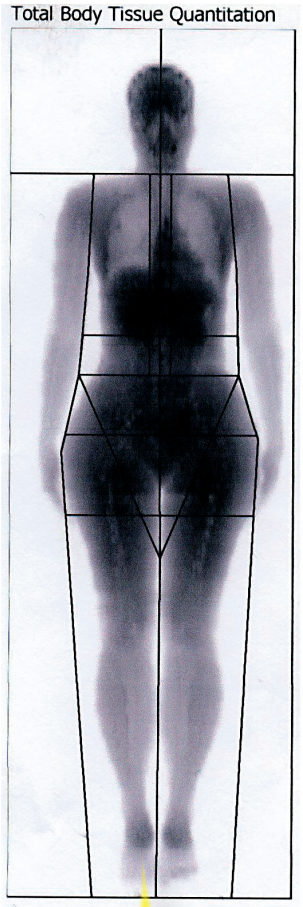
It is still unknown how much energy humans should expend to maintain good health.

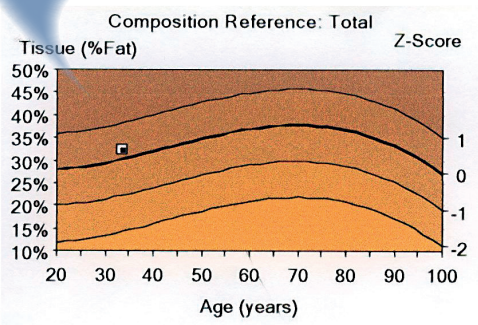
Your participation in this study has contributed to answering this important question.

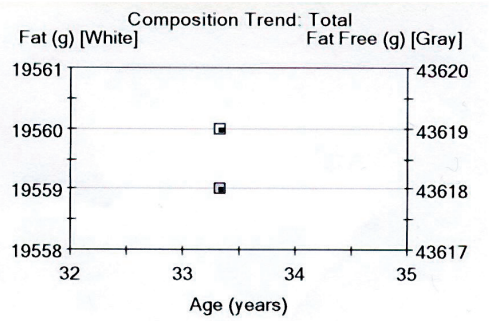
2. Feed back on your DEXA report on body composition

You will find a page in your report that looks like this.
This page helps to explain what you see.

This graph compares your % body fat with the average body fat for your peers, e.g. for a healthy normal subject matched for age, sex and ethnic origin. The dot represents where you are and the darker line represents the average.





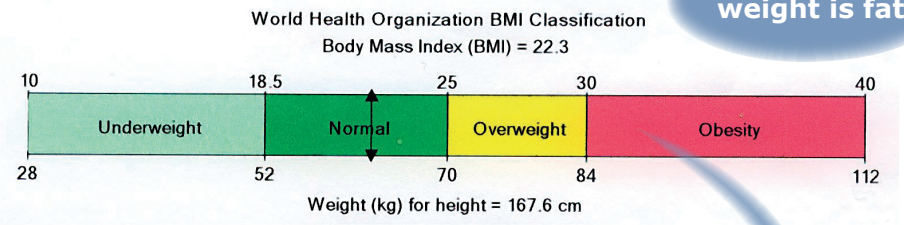


This table show your body fat patterning. Android fat is the fat stored around your waist and gynoid fat is the fat around your hips. Some of us are "apple" shaped with more android fat and some of us are "pears" with more gynoid fat

Trend: Fat Distribution

Measured Date	Age (years)	Android (%Fat)	Gynoid (%Fat)	A/G Ratio	Total Body (%Fat)
22/06/2000	33.3	26.6	45.0	0.59	32.5

This tells you what % of your body weight is fat



This is you! It is the image of your Body Composition exam

This table shows whether you are a healthy weight for your height. It uses the World Health Organisation criteria. The arrow indicates where you are.